REPORT TO THE JOINT LEGISLATIVE OVERSIGHT COMMITTEE ON MENTAL HEALTH, DEVELOPMENTAL DISABILITIES AND SUBSTANCE ABUSE SERVICES

ON

FIRST LEVEL COMMITMENT PILOT PROGRAM SESSION LAW 2007-504, HOUSE BILL 627

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NORTH CAROLINA
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF MENTAL HEALTH, DEVELOPMENTAL DISABILITIES AND SUBSTANCE ABUSE SERVICES

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Table of Contents

Executive Summary: The current pilot study evaluated the competency of Master's level professionals (Licensed Clinical Addiction Specialists and Licensed Clinical Social Workers) to review and recommend appropriate outcomes for 189 individuals under a commitment petition for involuntary commitment from October 1, 2008 to April 30, 2009. The study found statistically significant evidence to suggest that Master's level staff make very similar decisions pertaining to the first level evaluations for involuntary commitment to those made by Physicians/Psychiatrists and eligible Psychologists (those currently eligible to make such determinations under statute, waiver aside). This study did not find evidence that Master's level staff released people when they should have been committed. The study did not include Psychiatric Nurses (who were eligible, per waiver legislation) owing to their minute numbers in the state (see page 8). While the Stakeholders Advisory Committee did include representatives from the N.C. Nurses Association and the North Carolina Board of Nursing who were a part of the evaluation development, it was clear that psychiatric nurse participation was highly unlikely.

Therefore, the recommendation from this study is that Master's level Licensed Clinical Social Workers, and Licensed Clinical Addictions Specialists be allowed to perform first level commitment examinations statewide.

The process of involuntary commitment of an individual to a psychiatric hospital involves a "first level" examination by a Physician or an eligible Psychologist in a community setting. A Psychiatrist at the state psychiatric hospital then conducts a "second level" examination to confirm the need for involuntary commitment. In June 2003, the North Carolina legislature passed Session law 2003-178 (House Bill 883) directing the Secretary of the Department of Health and Human Services to develop a pilot program initially allowing up to five Local Management Entities (LMEs) to waive the current general statutes to allow Masters level professionals, in addition to Physicians/Psychiatrists and eligible Psychologists, to conduct the first level examinations for involuntary commitments. This waiver was instigated to evaluate whether licensed Master's level professionals could perform the initial examination for involuntary commitment as competently as Physicians/Psychiatrists and eligible Psychologists.

Introduction and History

Phase I Pilot Study: Five LMEs were selected by the Secretary, per the statutory waiver, to be trained and to evaluate individuals as necessary.

The first five LMEs that were selected by the Secretary were:

1) CenterPoint Human Services
2) Crossroads Behavioral Healthcare
3) Pathways MH/DD/SAS
4) Smoky Mountain Center
5) Piedmont Behavioral Healthcare

The pilot study, requested by the General Assembly under this amended statute, began in June 2006 with the cooperation of an advisory body (dba Stakeholders Advisory Committee), which included representatives from the North Carolina Psychological Association, North Carolina Psychiatric Association, North Carolina Substance Abuse Board, National Association of Social Workers, North Carolina Council of Community Programs, North Carolina Medical Society and

the North Carolina Nurses Association, amongst others. The results of that pilot study (described in *Appendix A*) were based primarily on data contributed by three of the five waivered sites, with the majority of the data coming from a single site. The question of whether Master's level staff makes different decisions pertaining to the first level evaluation for involuntary commitment than do Physicians/Psychiatrists or eligible Psychologists was studied. Findings were that Master's level professionals are as accurate in referring a person to the second level evaluation as are Physicians/Psychiatrists or eligible Psychologists. Also this study did not find any evidence that Master's level professionals release people when they should have been committed. In summary:

- 162 individuals from the five pilot sites were evaluated by both Masters and Doctoral level examiners.
- There was 97.5% agreement between Masters and Doctoral Level staff in their recommendations from First Level Examinations.
- 69 of the 162 individuals were recommended by both Masters and Doctoral Level for inpatient commitment.
- 81%-93% of the recommendations were confirmed by second level examinations of the individuals, depending on the type of commitment.
- 89 individuals were recommended for release since they did not meet the commitment criteria. Detailed results from the Phase 1 of the pilot are presented in *Appendix A*

The recommendation from this study was that the pilot be expanded statewide to allow licensed Clinical Social Workers, Psychiatric Nurses, and Licensed Clinical Addiction Specialists to perform first level commitment examinations. Although the study found no evidence of any harm, it was not able to demonstrate definitively that no harm is caused by having Master's level staff perform first level commitment examinations. While the study indicated that there was a very strong correlation between decisions made by the waivered Master's level clinicians and eligible Psychologists and Physicians/ Psychiatrists, the data was eventually deemed questionable due to the sample coming from a single site, the inability to apply the findings to the rest of the state's population, and lingering questions about medical risk to individuals who were released.

Phase II Pilot Study

In October 2007, the General Assembly extended the legislative waiver to five additional Local Management Entities and requested that the NC Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMHDDSAS) redesign the evaluation in an effort to obtain more conclusive results. More specifically, the legislation (Session Law 2007-504, House Bill 627) indicated that "The Secretary shall evaluate the effectiveness, quality, and efficiency of mental health, developmental disabilities, and substance abuse services and protection of health, safety, and welfare under the waiver."

The second group of five LMEs that were selected by the Secretary, using a Request for Application (RFA) process directed by the DMHDDSA, included:

6) Alamance-Caswell-Rockingham
7) Durham

8) East Carolina Behavioral Health
9) Eastpointe
10) Mecklenburg

In January 2008, the Division of MH/DD/SAS again convened the Stakeholders Advisory Committee. In addition to representatives from organizations in the Phase I Pilot Study, the body also included representatives from the LMEs who had been involved in the first evaluation study. In designing this second evaluation study, the group recognized the need to balance the goals of expanding the work force in the state and ensuring the most desirable outcome for the individual being evaluated. The second evaluation was also designed to address the perceived deficiencies identified by the Stakeholders Advisory Committee in the previous evaluation. Challenges identified from the previous evaluation included inadequate sample size and lack of generalizability. In addition, a concern expressed by the Stakeholders Advisory Committee members was that an individual might be at medical risk, if not seen by a physician.

Three sites were chosen for their regional geographic representation, population mix and provider capacity. Licensed Master's level professionals from three of the Phase I study LMEs, from the Phase II study LMEs, and from the NC Substance Abuse Professional Certification Board participated in three-day training, competency testing and a subsequent certification practicum. The onsite, "face to face" evaluation group included Master's level evaluators, who completed an assessment tool, the North Carolina Modified *Galatean Risk Assessment Tool* (*GRIS\T),* after a "face to face" assessment for each individual. The results of this assessment were distributed to three "paper" review groups, comprised of physicians, eligible psychologists and licensed Master's level professionals. These groups evaluated the cases based on the information in the *GRIST* completed by the onsite, "face to face" evaluators. The recommendation from each group was recorded, creating four independent recommendations on any one individual included in the evaluation and allowing for a more comprehensive analysis.

The level of agreement between the onsite, "face to face" evaluators and the three groups of "paper" reviewers was very high and statistically significant at 93.8% (Master's level), 88.6% (Psychologists) and 85.6% (Psychiatrists).

A separate comparison was completed between the three groups of "paper" reviewers. The results were once again statistically significant with a 91% agreement between the Master's level reviewers and the Psychiatrists, and a 90.2% agreement between the Masters level reviewers and the Psychologists.

A summary of the Phase II Pilot Study results include:

- 189 individuals from the pilot sites were evaluated by both Masters and Doctoral level examiners.
- 155 of the 189 individuals were recommended for inpatient commitment by the Master's level on-site "face to face" evaluators.
- Agreement between the three groups of paper reviewers and the on-site evaluators, as well as agreement between the groups of "paper" reviewers, was statistically significant.

The remaining portion of this report presents the evaluation design and results of this second phase evaluation in detail.

Background: In 2007, the North Carolina General Assembly passed Session Law 2007-504, House Bill 627 directing the Secretary of the Department of Health and Human Services to expand the pilot program allowing an additional five Local Management Entities to waive the current general statutes pertaining to the first level examinations for involuntary commitments (first commitments) performed by Physicians/Psychiatrists or eligible Psychologists. First level commitment evaluations are typically done by Physicians/Psychiatrists or eligible Psychologists or, more typically, by emergency room physicians who are often aided by onsite Master's level licensed clinicians (Licensed Clinical Social Workers or Licensed Clinical Addiction Specialists, depending on the presenting individual's need and the scope of practice of the evaluating clinician).

A review of mental health and substance abuse professionals across the state of North Carolina in 2006 showed that there were 30 counties across the state where there were no registered Psychiatrists and 25 counties that did not have a Psychologist (*see Appendix B, Maps of Professions across the State).* All but four counties in the state had one or more Licensed Clinical Social Workers (LCSWs). The NC Nursing Board reports that there was only 34 Master's level Psychiatric Nurses in the state. There are 1,107 registered and active Psychiatrists in the state of North Carolina and 1,801 PhD level Psychologists in the State (http://www.shepscenter.unc.edu/hp/prof07.htm). At one level then, noting these numbers, there was a perception that a strategy was required to develop and supplement the workforce in order to meet the needs of individuals with mental health and substance abuse challenges who were in periodic need of first commitment evaluations across the state. Building competence among Master's level licensed, qualified professionals (Nurses, Social Workers and Clinical Addiction Specialists), who were trained, tested and certified, was expected to create humane and timely options via the first commitment/involuntary commitment process that would extend the ability of the system to respond to consumer needs when and as needed.

In preparation for the second phase evaluation requested by the General Assembly, DMHDDSAS staff interviewed a majority of key stakeholders to determine those aspects of the first research effort that they deemed problematic and to ascertain where they believed changes might be made to address the problems and so answer the legislative questions posed. In so doing, the two basic evaluation questions, based on the legislation were agreed upon:

- Can comparable competency be developed in Master's level professionals to evaluate an individual for first level commitment through training using a prescribed curriculum?
- Will the immediate recommendation made be the same between the two professional groups given the same set of information on an individual?

Challenges that were identified and that needed to be addressed in order to ensure accuracy and parity across the state included a selection of sites to be based on:

- Region of the state
- Population demographics (urban vs. rural)
- Volume of first commitment evaluations conducted at the site (i.e., so as to yield a statistically valid sample within the study time line)
- Site staffing and structure

- Access to a state hospital
- Local crisis management capacity

The Stakeholders Advisory Committee agreed that a Request for Application (RFA) would be issued to all LMEs in which the criteria above would be taken into account. Selected sites would be required to identify and support staff to be trained and qualified to staff the sites 24/7 during the period of study. In responding to the RFA, sites were asked to address and describe their respective sites' strengths and weaknesses with regard to the region of the state served, site structure and staffing, demography of individuals served, the volume of first commitment examinations conducted at the site, access to a state psychiatric hospital, and local crisis management capacity. The sites would be required to follow the research protocol (*see evaluation section below*) with regard to collecting information, using prescribed forms, and would provide the information for third party "paper" reviews, per the protocol described below. Five LMEs responded to the RFA and were accepted into the training.

DMHDDSAS staff, with significant and crucial collaboration from those sites involved in the first phase research effort, designed and organized a three day training in which leading experts within the state were recruited to present on the relevant topics (*see Appendix C for course outline*). In addition, LME site staff, at the suggestion of members of the Stakeholders Advisory Committee, revised and improved the validity of the related test which each trainee was required to pass in order to do first commitment evaluations under the waiver. DMHDDSAS staff, with grant support from the National Association of Mental Health Program Directors, arranged for the trainings to be videotaped such that the trainings would have ongoing training utility for waivered LMEs when they were put on-line (*see Appendix C for the online reference*). Thirty-one trainees participated in the training held in June 2008 at the NC Council Training Facility. This number included individuals from the newly waivered sites, the previously waivered sites and individuals representing the North Carolina Substance Abuse Professional Certification Board. All trainees were administered the test of the materials presented. Those who passed the test had then to undergo a certification process, as agreed upon by the Stakeholders Advisory Committee, in which they were supervised by Physicians/Psychiatrists or eligible Psychologists who would then determine their ability to independently administer first commitment evaluations thereafter. As an indication of the rigorous nature of the training/testing/certification process and the tight timeline under which the second phase evaluation process was being implemented, of the 31 initial trainees, 13 were eventually able to act independently to do first commitment evaluations in waivered LMEs.

Evaluation: As suggested above, the evaluation was designed to determine whether competency comparable to that of a Psychologist or Psychiatrist can be developed in Master's level professionals (LCAS, LCSW) to evaluate an individual for first level commitment through training using a prescribed curriculum. The evaluation also asked the question of whether the immediate recommendation (commit vs. release or outpatient commitment) on a specific individual will be the same between the different groups of professionals (Psychiatrists, Psychologists and Master's level professionals) when the same information is evaluated. It should be noted that while legislation allowed Master's level Psychiatric Nurses to be allowed to be included amongst the waivered clinicians, none participated owing to their very small numbers (34 in the state).

The study design required Master's level licensed professionals (referred to as site level "face to face" evaluators) who were qualified, trained, tested and certified, to gather information through a standardized, validated instrument on individuals who were brought in for first commitment evaluation. That detailed information was then submitted via an online process, along with their recommendation as to outcome (commit vs. release or outpatient commitment). The information gathered on each individual, except for the recommendation, was then distributed to and reviewed by three independent groups of "paper" reviewers: 1) Masters' level professionals who have themselves undergone the training, competency testing and certification described above, 2) Psychiatrists; and 3) eligible Psychologists. A second level Master's qualified "paper" reviewer group was deemed necessary in the evaluation design. This was so that there would be an independent Master's group available for comparison that would have had access to the same level and quality of information as the Psychiatrists and Psychologists, unlike the "face to face" site level evaluator who would have had the added benefit of having actually seen and interacted "face to face" with the individual on whom they were making a recommendation. Each of the three groups of second level "paper" reviewers would then evaluate the information gathered by the site level "face to face" evaluator and make independent recommendation(s) on the individual, which, again, were submitted online to the DMHDDSAS Principal Investigator.

In total then, there were four sets of recommendations made on any one individual included in the evaluation (the "face to face" recommendations made by the Masters' level evaluators on site and the recommendations done by the independent second level Master's Level, Psychiatrist and Psychologist "paper" reviewers done with the online submissions of the validated instrument). The four sets of recommendations on an individual were then analyzed for level of agreement or concurrence between the groups. It was agreed by the Stakeholders Advisory Committee that a high level of agreement (***>80%***) between the groups on recommendation would demonstrate the competency of a Master's qualified professional who has undergone the training/testing/certification to independently evaluate and commit an individual in a manner consistent to that of a Psychiatrist or eligible Psychologist.

Thus, three sites were identified through the request for application (Smoky Mountain North, East Carolina Behavioral Health and Durham Local Management Entities) and provided professionals who participated as the primary *site level "face to face" evaluators.* In addition, representatives from three other LMEs (Eastpointe, Mecklenburg and Alamance Caswell Rockingham), who qualified to participate in the evaluation through the RFA process, and select members of the Substance Abuse Board were also included in the training. The representatives from the latter group of Master's level professionals functioned as *second level Master's "paper" reviewers.* The North Carolina Psychiatric Association and the North Carolina Psychological Association identified members from their respective organizations to function as *second level "paper" reviewers* as well. The study design also went through the Division's Internal Review Board review process and received clearance for implementation.

Assessment Tool: A standardized and validated mental health risk assessment instrument developed by the University of Aston, in the United Kingdom called the *Galatean Risk Assessment Tool* (***GRIST***) (*Appendix F*) was identified to be the core instrument on which information was to be collected on each individual. A validated instrument is a question, or

series of questions, that has been shown to get accurate answers, where accuracy is defined as people actually answering the same questions that scientists think they are asking. This instrument was presented to the Stakeholders Advisory Committee, which then reviewed and approved the instrument as suitable to the process. Approval for the use of the instrument was obtained from the primary developers of the *GRIST* tool at the University of Aston. This tool records the risk judgments associated with the person's mental health problems and the information supporting them. In addition to this tool, a two page preliminary assessment tool was developed by a field clinician, Don Herring of Western Highlands LME, and approved for use by the Advisory Committee (*Appendix D, Preliminary Assessment Tool*) in order to give a brief indication of the individual's mental status at the time of presentation. The two instruments were then built as a single module into the online survey system Survey Monkey$^{R.}$ In addition, a survey recommendation form was developed in Survey Monkey for second level "paper" reviewers to input their recommendation. Each second level "paper" reviewer had three options for recommendations they could make on each individual: 1) inpatient commitment, 2) release and 3) outpatient commitment. Reviewers also had the option of not making a recommendation because of inadequate information. Access to the online system was limited to 'entry only' mode for all reviewers. The DMHDDSAS Principal Investigator had access to download and analyze the information on an ongoing basis.

Implementation: Data collection was conducted from October 1, 2008 to April 30, 2009. The process was designed to be conducted online to avoid time delay between reviews, maintain quality of data and avoid loss of information in transit. Two modules were created on the online survey system, Survey Monkey. The main module included the primary data collection instruments and a recommendation form for first level "face to face" site evaluators. The second module was designed as a short form intended for the three groups of second level "paper" reviewers to submit their recommendation and their associated rationale. The first level site "face to face" evaluators and the second level "paper" reviewers were all assigned unique IDs and access to the Survey Monkey Assessment module. First level site "face to face" evaluators gathered and inputted information on each individual they evaluated for first commitment into the online *North Carolina modified GRIST Tool.* These same evaluators also submitted a recommendation on each of the individuals they evaluated. Each individual's case report was then converted to a Adobe Acrobat (.pdf) file and sent to the coordinator of each second level "paper" reviewer group who then assigned each case file randomly to one of their representatives. The second level "paper" reviewers were blind to the recommendation of the site evaluators (i.e., the first level site "face to face" evaluator recommendation was not shared (as to commitment or release) with the second level "paper" reviewers). The second level "paper" reviewers were assigned unique IDs and given access only to the online recommendation form. The second level "paper" reviewers made their own independent assessment of the individual based on the information provided to them on the modified *GRIST* tool and documented their recommendation in the online recommendation form.

The recommendations from each of the four groups, the first level "face to face" site evaluators, the second level "paper" reviewers, along with other key variables, were inputted into an Excel data base and then later converted to an SPSS file.

Data Analysis: Data was analyzed using SPSS 15.0. The data for the three first level sites were pooled to form the full sample file which included 189 samples. The analysis looks at three factors- the percent (%) agreement, the *p value* and the *Kappa Statistic.*

- Percent (%) agreement is the total number of cases on which there was agreement between the two groups of raters divided by the total number of valid cases in that relationship.
- The *Kappa statistic* evaluates the degree of association or level of concurrence between two groups; measure of inter-rater agreement for qualitative data: It is a statistical measure for assessing the reliability of agreement between raters. Range for evaluation of the Kappa statistic is as below

Poor agreement	= Less than 0.20
Fair agreement	= 0.20 to 0.40
Moderate agreement	= 0.40 to 0.60
Good agreement	= 0.60 to 0.80
Excellent agreement	= 0.80 to 1.00

- *P value:* The p-value indicates the probability that the result obtained in a statistical test is due to chance rather than a true relationship between measures. Small p-values indicate that it is very unlikely that the results were due to chance.

A *kappa statistic* as well as the percentage of agreement was calculated for each combination of reviewers, i.e., between 1) the first level "face to face" evaluators and the second level "paper" Master's reviewers, 2) the first level "face to face" evaluators and Psychiatrists and 3) the first level "face to face" evaluators and Psychologists. In addition, *percentage of agreement and the kappa statistic* were calculated amongst the three groups of second level "paper" reviewers as well. Statisticians from the University of North Carolina (UNC) School of Public Health served as consultants on the analysis of the data and interpretation of findings.

Each individual included in the sample had four recommendations attached to the case file. All 189 had recommendations from first level "face to face" site evaluators and from second level "paper" Master's Reviewers. Reviewing Psychiatrists could not give a recommendation based on the information that was made available to them on the *GRIST* tool on 15 individuals; psychologists could not give a recommendation based on the information provided to them on 6 individuals. Only two individuals were common to both groups. Analysis was conducted including and excluding this category from the data set. Only 17 individuals' received an 'outpatient commitment' recommendation from reviewing groups of professionals. The number of cases in this category was extremely small. Inclusion of the category in the analysis made the level of concurrence weaker than it otherwise would have been. The data presented in tables below represent the level of agreement or concurrence without the inclusion of the 'outpatient category'. The percent agreement between groups including 'outpatient category' in the analysis is given in the foot notes.

Results and Discussion: Each of the three sites submitted evaluations into the Survey Monkey^{R} data collection module. There were two reviewers at each site. On final count, there were 77 submissions from Durham, 57 from East Carolina Behavioral Health, and 55 from Smoky Mountain North, yielding a total sample size of 189.

Table 1: Distribution of Recommendations by Site

Site	Inpatient	Release	Outpatient	Total
Durham	59	14	4	77
ECBH	50	5	2	57
Smoky Mountain North	46	7	2	55

Table 1 shows the distribution of recommendations with in each site. The majority of recommendations from the on-site "face to face" evaluators were for inpatient commitment of the individuals: 76.6% in Durham; 87.7% in ECBH and 83.6% from Smoky Mountain North respectively. Of the 189 individuals in the pooled sample, 155 individuals were recommended for inpatient commitment by first level "face to face" site evaluators; only 34 individuals were either released or recommended for outpatient follow-up by first level "face to face" site level evaluators.

The three groups of second level "paper" reviewers were the Master's level reviewers, Psychiatrists and eligible Psychologists. Each group was treated as a single unit for this analysis. The number of reviews conducted by each reviewer category ranged from 28-44 for Masters qualified professionals; 18-24 for the psychiatrists and 15-28 for psychologists.

Table 2: Distribution of Recommendations by Type of Reviewer

Reviewer	Inpatient	Release	Outpatient	Cannot make a Recommendation	Total
"face to face" Site Examiners	**155**	26	8	0	189
Master's level	148	39	2	0	189
Psychologists	130	46	7	**6**	189
Psychiatrists	133	39	2	**15**	189

Table 2 shows the distribution of recommendations by each group of second level "paper" reviewers. It may be noted that the first level "face to face" site evaluators tend to recommend a higher number of inpatient commitments compared to the second level "paper" reviewers. While first level "face to face" site evaluators recommended a release option for 26 individuals, the three groups of "paper" reviewers recommended release for a higher number of individuals, with the psychiatrists recommending release for 46 individuals and the Master's qualified reviewers and the Psychologists recommended 39 individuals each for release. It should be noted that Psychologist reviewers did not provide a recommendation on 6 individuals and the Psychiatrist reviewers did not provide a recommendation on 15 individuals out of the 189 individuals whose cases they evaluated. Both groups cited lack of adequate information provided through the validated *GRIST* instrument as the reason for the inability to make a recommendation.

The level of concurrence or agreement was calculated using the *Kappa* statistic. In addition, the total percentage agreement between the groups was also calculated for each combination of reviewers.

Table 3:Level of Concurrence between Site Level "face to face" Evaluators and Second level "Paper" Reviewers

	Masters Level Second Reviewers % agreement (kappa)	Psychiatrists % agreement (kappa)	Psychologists % agreement (kappa)	P-Value
"face to face" Site Level Reviewer	93.8% (.79)	85.6%(0.63)	88.6%(0.64)	.00

Note. Inclusion of outpatient category in the analysis reduces the strength of association to 89.9% due to the small sample size in that category(.70) between the two masters groups, 81.4% (0.54) with psychologists and 85.5 %(0.60) with psychiatrists

Table 3 shows the level of agreement and the kappa statistic between *"face to face" site level Master's reviewers* and *second level Master's "paper" reviewers*. The test was statistically significant with a *p-value* of 0.00. The level of agreement was 93.8% with a kappa of 0.74, when the outpatient category was excluded from the analysis. In the comparison between the "face to face" site level evaluators and the Master's level, there were no cases for which a recommendation had not been made.

In the comparison between first level "face to face" site evaluators and *second level psychologist "paper" reviewers*, the test was statistically significant with a *kappa* of 0.64 and the percent agreement at 88.6%. In the comparison between first level "face to face" site evaluators and *second level psychiatrist "paper" reviewers*, the test was statistically significant with a *kappa* of 0.63 and a percentage agreement of 85.6%.[1]

Table 4: Concurrence between Three Groups of Reviewers

	Psychologists	Psychiatrists	P-Value
Master's Paper Reviewers	90.2%(0.72)	91%(0.74)	.00

Note. Inclusion of the 'outpatient category and 'cannot make recommendation in the analysis reduce the strength of association because of the small samples that fall in these categories to 84% (0.64) between masters and psychologists; 89% (0.70) between Masters and Psychiatrists

Table 4 compares the levels of concurrence between three groups of second level "paper" reviewers amongst themselves. It could be argued that the first level "face to face" site evaluators had the added advantage of seeing the individuals themselves, adding a bias to their recommendation and making their recommendation different than the recommendation of the "paper" reviewers who only see the information that is made available to them through the modified *GRIST* tool. The comparison of the recommendations of the three groups of reviewers may be more appropriate to answer the evaluation question of whether Master's qualified professionals who have been trained on the prescribed curriculum, competency tested and certified are able to make recommendations similar to that of the Psychiatrists and eligible Psychologists, given the same information on an individual. The table shows that each

[1] There were 6 cases for which the psychologists could not make a recommendation due to inadequate information being available on an individual. Computation of a *kappa statistic* requires the availability of a symmetric table in which the values of the first variable match the values of the second variable. Because the category of 'cannot make a recommendation' was only available for the Psychologists and not for the first level "face to face" site evaluators, the category had to be excluded from the analysis making the number of valid cases 183. Similarly, there were 15 cases on which the Psychiatrists could not make a recommendation. Due to the limitations of the statistical test which requires a symmetrical table for the computation of the statistic, the category of cannot make a recommendation had to be excluded from the analysis, making the number of valid cases 174.

comparison was statistically significant, with a *kappa* of 0.74 between Master's level "paper" reviewers and psychiatrists and an agreement of 91%; a *kappa* of 0.67 between Master's level "paper" reviewers and Psychologists with a total agreement of 90.2%. In addition, the psychiatrists and Psychologists were compared. These two groups of professionals who currently have the legislated authority to conduct a first commitment evaluation had a 92% level of concurrence with a kappa of 0.78, very similar to the level of concurrence shown with the Master's level reviewers.

In July of 2009, the Division of MH/DD/SAS and the Division of State Operated Health Care Facilities, at the request of the Stakeholders Advisory Committee, retroactively explored the range of involuntary commitment referrals made to state psychiatric hospitals during the project time frame of October 1, 2008 to April 30, 2009. Typically, Durham Center admitted to Central Regional hospital (CRH), East Carolina Behavioral Health LME to Cherry hospital and Smoky Mountain LME to Broughton hospital. The referrals made by Master's level waivered personnel were only a subset of the total referrals made during this period from each of the three LME catchment areas. In most instances, the hospitals were not able to differentiate between the different professionals who made referrals. Of the 364 First Commitment referrals made from Durham Center to Central Regional Hospital (both campuses) during the relevant time frame, there were only 8 denials made during second level evaluation. Of 119 referrals made from ECBH to Cherry hospital, there were 16 denials. In both cases it is unclear which professional groups made the referrals that were denied admission. Broughton hospital received 352 First Commitment referrals of which 90 cases did not show up for further evaluation or were diverted to other facilities. 230 cases were admitted and 22 were denied admission. Of the 22 cases that were denied, only 5 were referred by waiver professionals of Smoky Mountain LME and the other 17 by Emergency Department physicians. This data presented highlight the small proportion of cases that were denied admission during second level evaluation. It was not the purpose of the current evaluation design to follow consumers to the second evaluation. This data does, however, give a glimpse into the high level of consensus that would potentially be present between first and second level evaluations, paralleling the results of the phase I evaluation of 2006.

Medical Clearance/ Medical Evaluation*:*

One of the areas of concern to the Stakeholders Advisory Committee was whether individuals had adequate access to a medical examination, so as to differentiate their physical state from their psychiatric state or to determine the interaction between the two. Each of the first level "face to face" sites followed its own protocol in determining medical clearance. Approximately 97% of those individuals evaluated received a medical clearance per the site protocol as indicated below.

Medical clearance is defined by the three sites as full and complete medical evaluation by a medical professional (MD, RN, NP or PA) which includes a toxicology screen, following the state issued protocol. A copy of the State mandated medical clearance protocol is included in *Appendix E.*

Durham Center has two on-site Registered Nurses who medically evaluated all individuals who were brought in for involuntary commitment. The medical evaluation consisted of an extensive assessment which included a toxic screen and vital signs. Elderly individuals who showed abnormal vital signs were sent to Durham Regional Hospital and to Duke University for further medical evaluation and clearance. The first commitment assessment does not happen till the medical evaluation component is completed. The site has contracted with a Physician Assistant (PA) to be available during the weekend for medical evaluation and clearance.

Durham Center also implemented the first commitment evaluations through *Freedom House Recovery Center of Durham*. The center is an approved 'involuntary commitment site.' This approval allows the site providers to commit an individual to their own facility for observation for a three day period. The individual is evaluated by a Psychiatrist the following day, which then substantiates or withdraws the recommendation.

In East Carolina Behavioral Health and Smoky Mountain North, when the pathway of entry of an individual is through the emergency department of the local hospitals, medical clearance is conducted by the emergency room Physician. The vast majority of inpatient hospitals do not entertain a referral for involuntary commitment until after a medical clearance has been completed by medical professionals on site. In addition, ECBH is in the process of developing a contract with a local psychiatrist as well as a laboratory to assist with the medical clearance of individuals who come to the site directly. At this time, the few individuals who are brought directly to the provider site are taken first to the local inpatient hospital for medical evaluation and clearance.

Table 5: Medical Clearance by Site

Site	Medical Clearance Done	Medical Clearance Not Done	Total
Durham	98.7%(76)	1.3%(1)	77
ECBH	93.0%(53)	7%(4)	57
Smoky Mountain North	98.2(54)	1.8%(1)	55

Each site was required to put in place a process for medically clearing the individuals who present for a first commitment evaluation. 98.7 % of the individuals from Durham, 93% of the individuals from ECBH and 98% of individuals from Smoky North received medical clearance before being evaluated for first commitment.

Conclusions:

Based on the results of this evaluation, which demonstrates a statistically significant and high level of concurrence between the Master's trained and certified clinicians and eligible Psychologists and Physician/Psychiatrists, the Division recommends that the current waiver be made law to include all LMEs. This is done with the understanding that each LME would be required to adhere to the training, testing and certification process that the Division of Mental Health, Developmental Disabilities and Substance Abuse Services has established, with the concurrence of the Stakeholders Advisory Committee, in identifying Licensed Clinical Social Workers and Licensed Clinical Addiction Specialists to carry out First Commitment evaluations.

Appendices

Appendix A

Key Results From Phase I Evaluation, 2006

Phase I Evaluation Summary: [The complete Phase I report is available on request]

There were four primary questions that this pilot program attempted to answer. These were:

1. Does having Master's trained professionals performing first level commitment examinations result in individuals being committed when they should not have been committed?

2. Does having Master's trained professionals performing first level commitment examinations result in individuals not being committed when they should have been committed?

3. Does having Master's trained professionals performing first level commitment examinations result in increased harm to either the person being petitioned for commitment or others?

4. Does having Master's trained professionals performing first level commitment examinations result in significant medical issues not being recognized and addressed?

Findings: Useable data were obtained on 397 patients who were under commitment petition and received first examinations between January 23 and February 27, 2006. There were 246 cases seen at the pilot sites and 151 cases seen in the comparison sites. The largest single portion of this data came from the Smoky Mountain Center where data was collected on 135 patients.

Table 1 displays data on all of the preliminary examinations conducted by staff at the pilot and comparison sites in the study. The top part of the table shows that Master's level staff independently completed 90 of the preliminary examinations, and that Masters and Doctoral level staff jointly completed 156 of the examinations. The data was analyzed and it was found that there was also complete agreement between Masters and Doctoral level staff in terms of their recommendations for referring patients for second examinations.

The bottom part of Table 1 shows that 107 preliminary examinations were conducted by Doctoral level staff at the comparison sites in the study. Only Doctoral level staff were permitted to conduct these examinations at these sites. Thus, no data are presented in the columns in the table for "Masters only" staff and both Masters and Doctoral level staff.

Tables 2 through 5 present data on the legal and treatment dispositions from preliminary examinations conducted at the pilot and comparison sites in the study.

Table 2 shows that the percentage of patients released (i.e., not referred for second examinations) ranged from 35.4% for the pilot sites to 36.4% for the comparison sites. Alternatively, the percentage referred for second examinations ranged from 63.6% for the comparison sites to 64.6 % for the pilot sites.

It is important to note that the vast majority of the 87 individuals from the pilot sites and the 39 from the comparison sites that were released were not sent home without treatment. The majority were referred to some inpatient or outpatient treatment setting. It was not uncommon to "release" the person from the involuntary commitment petition yet admit the person to a community hospital or crisis center on a voluntary basis. Thus the person is not really released in terms of treatment even thought they are released from the legal perspective.

Table 3 shows data on treatment dispositions from the preliminary examinations. It can be seen from this table that 70.3 % of the patients at the pilot sites and 65.4% at the comparison sites were referred for inpatient treatment. Alternatively, 23.6% of the patients at the pilot sites and 18.7% of those at the comparison sites were referred for outpatient treatment.

The Preliminary Report for this study focused on 64 patients where their preliminary examination involved both Masters and Doctoral level staff. Those data showed there was no difference between these staff in terms of recommendations from their preliminary examinations. A similar analysis of data on 156 patients who had been examined by both Masters and Doctoral level staff was conducted, and the data showed the same results as the earlier study. Thus, it appears that other factors are more likely to account for variations in legal and treatment dispositions from preliminary examinations.

Table 4 displays data on both the legal and treatment dispositions from the preliminary examinations. Overall, this table shows that close to two-thirds of the patients were referred for inpatient treatment, one-third were referred for outpatient treatment, and that a small percentage (6.1% for pilots and 10.3% for comparisons) were referred for other treatment or were not referred for treatment.

This study found that there was strong agreement between Masters and Doctoral level staff in terms of patients recommended for second examinations. However, while staff may agree on which patients they recommend for second examinations, this does not mean that they made the right recommendations for those patients. Consequently, we analyzed data on the legal dispositions of the patients referred for second examinations. These examinations are usually conducted by highly qualified medical staff at community or state psychiatric centers, and thus they can provide an objective means for assessing the quality of referrals from preliminary examinations.

Table 5 displays data on legal dispositions from second examinations conducted on patients referred from the pilot and comparison sites in the study. The choice at this point in the commitment process allows for the physician performing the second level examination to agree with the first level examiner and commit the person or to determine that the person does not meet the criteria for commitment and release the person from the commitment petition. Table 5 shows that the percentage of commitments ranged from 81.3% for Crossroads to 100% for Centerpoint. While the percentage of commitments was lower for the comparison site (Durham) than for the pilot sites (76.7% vs. 89.4%) these sites are unlikely to be truly comparable due to differences in their service providers and consumers. Nonetheless, the data suggest that staff at both the pilot and the comparison sites did an exemplary job in screening and referring patients for second examinations.

A review of adverse events recorded on follow-up did not find a difference in events between Masters or Doctoral level staff. However, the size of this sample combined with the rarity of adverse events does not permit this study to draw any conclusion from this data. The sample size in this study was too small to allow for a statistically significant finding. A review of missed medical data also did not allow for conclusions but the few events were found with both the Doctoral and Master's level evaluators.

Table 1: Preliminary Examinations Conducted by Masters and Doctoral Level Staff at Pilot and Comparison Sites

	Staff Who Conducted Preliminary Examinations							
	Masters-Only[1]		Doctoral-Only		Both[2]		Total	
Pilot Sites	N	%	N	%	N	%	N	%
Centerpoint	8	8.9%	0	0.0%	5	3.2%	13	5.3%
Crossroads	14	15.6%	0	0.0%	33	21.2%	47	19.1%
Pathways	3	3.3%	0	0.0%	17	10.9%	20	8.1%
Piedmont	5	5.6%	0	0.0%	26	16.7%	31	12.6%
Smoky Mt.	60	66.7%	0	0.0%	75	48.1%	135	54.9%
Total	90	100.0%	0	0.0%	156	100.0%	246	100.0%

	Staff Who Conducted Preliminary Examinations							
	Masters-Only[3]		Doctoral-Only		Both[3]		Total	
Comparison Sites	N	%	N	%	N	%	N	%
Durham	0	0.0%	70	65.4%	0	0.0%	70	65.4%
Eastpointe	0	0.0%	37	34.6%	0	0.0%	37	34.6%
Total	0	0.0%	107	100.0%	0	0.0%	107	100.0%

1. Masters level staff permitted to make final determination for preliminary examinations only when they recommended patient for second Examination
2. All recommendations made by Masters level staff for "release" were reviewed by Doctoral Level staff, who made the Final Determination
3. North Carolina Law permitted Masters Level Preliminary Examinations only at Pilot Sites

Table 2: Legal Dispositions from Preliminary Examinations Conducted at Pilot and Comparison Sites in Study

	Legal Dispositions from Preliminary Examinations				
Pilot Sites	Number Referred for Second Examinations	Percent Referred for Second Examinations	Number Released After Preliminary Examination[1,2]	Percent Released After Preliminary Examination	Total
Centerpoint	5	38.5%	8	61.5%	13
Crossroads	26	55.3%	21	44.7%	47
Pathways	11	55.0%	9	45.0%	20
Piedmont	21	67.7%	10	32.3%	31
Smoky Mt.	96	71.1%	39	28.9%	135
Total	159	64.6%	87	35.4%	246
	Legal Dispositions from Preliminary Examinations				
Comparison Sites	Number Referred for Second Examinations	Percent Referred for Second Examinations	Number Released After Preliminary Examination	Percent Released After Preliminary Examination	Total
Durham	44	62.9%	26	37.1%	70
Eastpointe	24	64.9%	13	35.1%	37
Total	68	63.6%	39	36.4%	107

1. Includes 14 voluntarily admissions to inpatient psychiatric facilities
2. Includes three Outpatient Commitments (release pending count hearing)

Table 3: Treatment Dispositions from Preliminary Examinations Conducted at Pilot and Comparison Sites in Study

	Treatment Dispositions from Preliminary Examinations						
Pilot Sites	Number Inpatient[1]	Percent Inpatient	Number Outpatient	Percent Outpatient	Number Other[2]	Percent Other	Total Exams
Centerpoint	9	69.2%	3	23.1%	1	7.7%	13
Crossroads	29	61.7%	14	29.8%	4	8.5%	47
Pathways	14	70.0%	4	20.0%	2	10.0%	20
Piedmont	18	58.1%	12	38.7%	1	3.2%	31
Smoky Mt.	103	76.3%	25	18.5%	7	5.2%	135
Total	173	70.3%	58	23.6%	15	6.1%	246

	Treatment Dispositions from Preliminary Examinations						
Comparison Sites	Number Inpatient[1]	Percent Inpatient	Number Outpatient	Percent Outpatient	Number Other[2]	Percent Other	Total Exams
Durham	46	43.0%	16	15.0%	8	11.4%	70
Eastpointe	24	22.4%	4	3.7%	9	24.3%	37
Total	70	65.4%	20	18.7%	17	15.9%	107

1. Includes patients referred for second examinations, Crisis Beds, and Homes for Assisted Living
2. Includes patients who were not referred

Table 4: Legal and Treatment Dispositions from Preliminary Examinations Conducted at Pilot and Comparison Sites in Study

Pilot Sites	Legal Dispositions from Preliminary Examinations					
Treatment Dispositions	Number Referred for Second Examination[1]	Percent Referred for Second Examination	Number Released After Preliminary Examination[1]	Percent Released after Preliminary Examination[1]	Total	Percent
Inpatient Treatment	159	64.6%	18	7.3%	173	70.3%
Outpatient Treatment	0	0.0%	58	23.6%	58	23.6%
Other Treatment/ Not Referred	0	0.0%	15	6.1%	15	6.1%
Total	159	64.6%	87	35.4%	246	100.0%

Comparison Sites	Legal Dispositions from Preliminary Examinations					
Treatment Dispositions	Number Referred for Second Examination[1]	Percent Referred for Second Examination	Number Released After Preliminary Examination[1]	Percent Released after Preliminary Examination[1]	Total	Percent
Inpatient Treatment	68	63.6%	2	1.9%	70	65.4%
Outpatient Treatment	0	0.0%	26	24.3%	26	24.3%
Other Treatment/ Not Referred	0	0.0%	11	10.3%	11	10.3%
Total	68	63.6%	39	36.4%	107	100.0%

1. Includes patients referred for second examinations
2. Includes 6 patients with outpatient commitments (release pending court hearing)

Table 5: Legal Dispositions from Second Examinations Conducted at Pilot and Comparison Sites in Study

	Legal Dispositions from Second Examination				
Pilot Sites	Number Referred	Number Missing Data	Number Having Data	Number Committed[1]	Percent Committed[2]
Centerpoint	5	1	4	4	100.0%
Crossroads	26	10	16	13	81.3%
Pathways	11	0	11	10	90.9%
Piedmont	21	1	20	18	90.0%
Smoky Mt.	96	5	91	82	90.1%
Total	159	17	142	127	89.4%

	Legal Dispositions from Second Examination				
Comparison Sites	Number Referred	Number Missing Data	Number Having Data	Number Committed[1]	Percent Committed[2]
Durham	44	1	43	33	76.7%
Eastpointe[3]	24	0	0	0	0.0%
Total	68	1	43	33	76.7%

1. Based on data collected by study and data available from HEARTS
2. Based on number having data on second Examination
3. No second Examination data available for Eastpointe

Statements Supported by the Data: The following statements are supported by the data from the Phase 1 evaluation,

- When examining the same patients, Masters as well as Doctoral level staff make the same recommendations about whether to release or commit patients.

- When examining different patients within the same LME, Masters as well as Doctoral level staff appear to make the same recommendations about whether to release or commit patients.

- Given that both Masters and Doctoral level staff make the same recommendations regarding commitment or release, it is expected that the clinical outcomes would be similar.

- It appears that the availability of community resources is the determining factor in whether or not the patient is sent to a secure State Psychiatric or Substance Abuse facility or placed in their local community.

- There was no evidence found to suggest that Masters level staff performs first level commitment examinations differently than Doctoral level staff.

- There is a great deal of variability in the commitment process and outcome depending on the LME involved.

Discussion: At the outset, the evaluation of the First Level Commitment Pilot Program attempted to address the following four questions. Each question is listed below followed by a discussion.

1. ***Does having Masters trained professionals performing first level commitment examinations result in individuals being committed when they should not have been committed?*** The data in the study indicates that the pilot sites send patients for a second level commitment examination at the same rate as do the comparison sites. The percent of time the patient is committed following the second level examination is higher for the pilot sites (89.4% vs. 76.7%) suggesting that Master's level staff are at least as accurate at making the correct commitment decision in referring patients for the second level examination. The comparison site (Durham) in this study having follow up data may not be representative thus one can not generalize to say that Master's level evaluators are more accurate in making commitment decisions.

2. ***Does having masters trained professionals performing first level commitment examinations result in individuals being released when they should have been committed?*** As noted earlier, the scope of the study precludes any definitive answer to this question. However, due to the design of the study, no Master's level clinician released anyone without the review and approval of a Doctoral level supervisor. Therefore, if an individual was released when they should have been committed the Doctoral level staff concurred with the release. This study is not able to answer with

certainty that Master's level clinicians release only when appropriate as the study's design did not allow for independent review of masters level staff commitment decisions by highly trained and experienced doctoral level individuals. However, no data was found to suggest that the persons being released by Master's level staff should have been committed. In terms of referring for commitment, the data shows that the Master's level staff have a higher rate of agreement with the decision of the second level evaluator than do the physician evaluators.

3. ***Does having Masters trained professionals performing first level commitment examinations result in increased harm to either the person being petitioned or others?*** As noted earlier, the scope of the study did not permit this question to be definitively answered. This study did not produce any evidence to suggest that there were more adverse events among patients released by Master's level clinicians then by the doctoral level staff at the comparison site. There were few adverse events reported and there were no significant differences between Master's versus doctoral level staff.

4. ***Does having Masters trained professionals performing first level commitment examinations result in significant medical issues not being recognized and addressed?*** The small sample size and the rarity of such medical problems make answering this question impossible with the current study. However, this study found no evidence that significant medical issues were missed by Master's level clinicians. In fact, the very few incidences reported were divided among Master's level and physician evaluators.

The study began with the evaluators having the hypothesis that Master's level staff would release more individuals than doctoral level clinicians. This hypothesis was based on the belief that the masters level evaluators would be placing individuals in community settings more frequently and that ER physicians would be more likely to pass the patient on to the second level evaluation. In fact, pattern of release following the first level examination was the same for both groups and the primary factor in deciding whether a person is committed or released appears to be the presence of appropriate community resources.

Both the pilot and comparison sites sent patients to inpatient and outpatient settings at approximately the same rate. However, the comparison sites released slightly more individuals to other forms of treatment or released without a referral.

There was a great deal of variability among LMEs suggesting that there are a range of factors effecting the outcome of commitment evaluations but it does not appear that the educational level of the staff performing the evaluation is a significant factor. The various LME processes and procedures surrounding involuntary commitments may be an important factor in accounting for this variability. In addition, the differences among state hospitals may also contribute to the variability.

It appears that the high level of agreement among Masters and Doctoral level clinicians seeing the same patient may be due to the following factors.

- The very thorough training program developed by stakeholders and pilots
- The high level of competency required to pass the examination
- The supervision that all Master's level staff obtained following the examination.
- The Doctoral level consultation required in all cases where the Master's level staff person is considering releasing the individual from the commitment following the first examination

The presence or absence of community resources seems to be the determining factor in whether a Masters or Doctoral level professional performing a first level commitment examination can send the individual to treatment in their local community versus having to transport the individual to a state psychiatric hospital or to an Alcohol and Drug Abuse Treatment Center. Sites in this study having access to community crisis beds were able to appropriately divert commitments from state facilities.

Recommendation: This study found that Masters and Doctoral level staff make similar commitment decisions. Community resources, differences among LMEs, and possible differences among state hospitals appear to be the factors most affecting the commitment process and outcome. The design of the pilot helped to assure that safety was secured by requiring Master's level professionals planning to release the individual from a commitment petition obtain consultation and approval from a Doctoral level professional. Therefore, the following are recommendations based on the evaluation of the First Level Commitment Pilot Program.

- It is recommended that this pilot be expanded statewide to allow clinical social workers, psychiatric nurses, and clinical addictions specialists to perform first level commitment examinations.

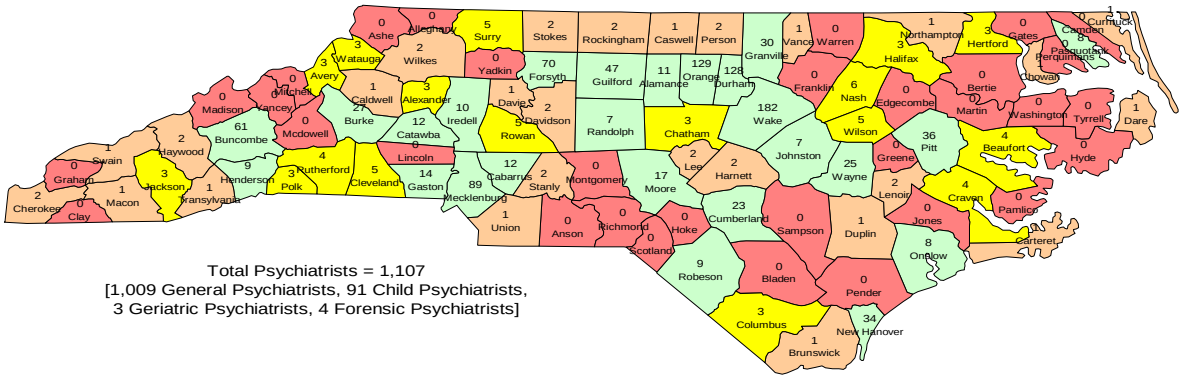
- To accomplish this, it is recommended that General Statutes 122C-261-263 and 281-283 be amended to allow an eligible clinical social worker and an eligible clinical addictions specialist to perform the initial (first level) commitment examination. Definitions for each of these professions could be added to the General Statutes to include a licensed clinical social worker or a Master's level licensed clinical addictions specialist. To be eligible, these professionals would be required to complete a uniform training course, pass an approved examination, have approved supervision, and obtain approval from Doctoral level staff person prior to releasing an individual from a commitment petition.

- If this pilot is expanded, it is recommended that there be some identifier given to individuals eligible to perform these first level commitment examinations so that facilities accepting involuntary commitments will know who is qualified to sign the involuntary commitment examination form. In addition, it is recommended that the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (DMH/DD/SAS) maintain a registration of these new professionals eligible to perform first level commitment examinations.

Appendix B

Maps Showing Distribution of Professional Groups In North Carolina

Total Number of Psychiatrists (All Specialties) in NC By County As of Oct 21, 2007



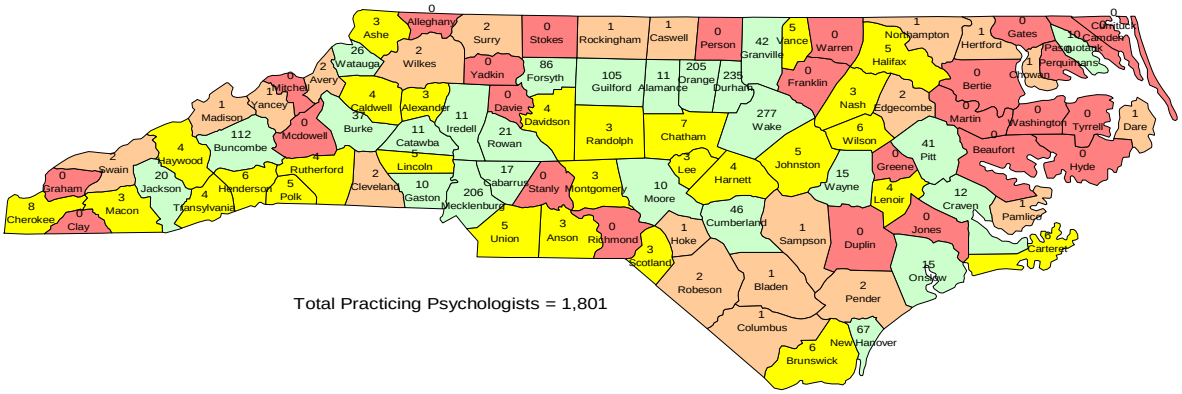
Number of Psychiatrists Per County	
0	(32 counties)
1 to 2	(26 counties)
3 to 6	(17 counties)
7 to 182	(25 counties)

Data Source: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the North Carolina Medical Board and North Carolina Medical Society, 2007.

Map prepared by NC DMH/DD/SAS, Quality Management Team

[Includes active, instate, non-federal, non-resident-in-training physicians by self-reported primary specialty area, licensed in NC as of October 21, 2007]

Number of Practicing Psychologists (Doctoral Level) In NC By County As of October 21, 2007



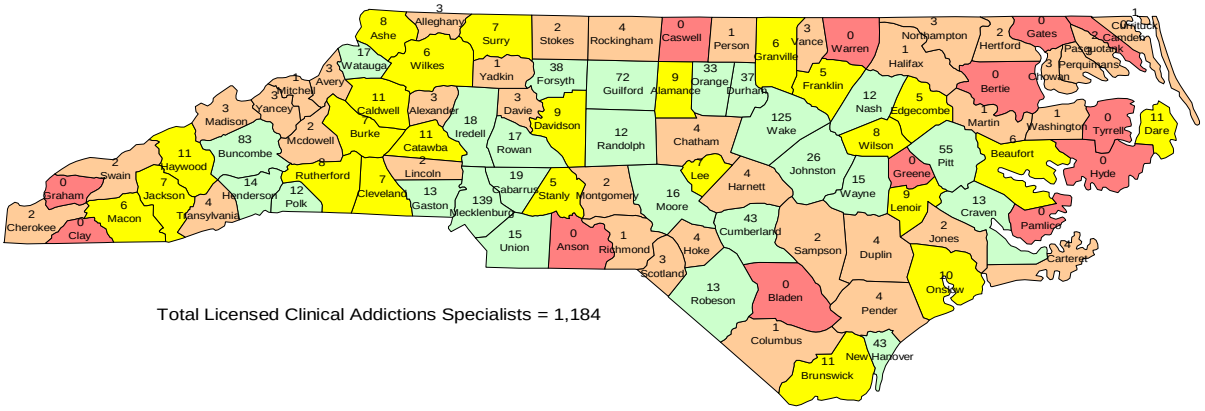
Number of Psychologists Per County	
0	(26 counties)
1 to 2	(21 counties)
3 to 9	(28 counties)
10 to 277	(25 counties)

Data Source: North Carolina Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the respective licensing board, October 21, 2007.

Map prepared by NC DMH/DD/SAS, Quality Management Team

[Includes those who are licensed and active within the profession as well as those with unknown activity status; inactives are excluded.]

Number of Licensed Clinical Addictions Specialists In NC By County As of August 6, 2009



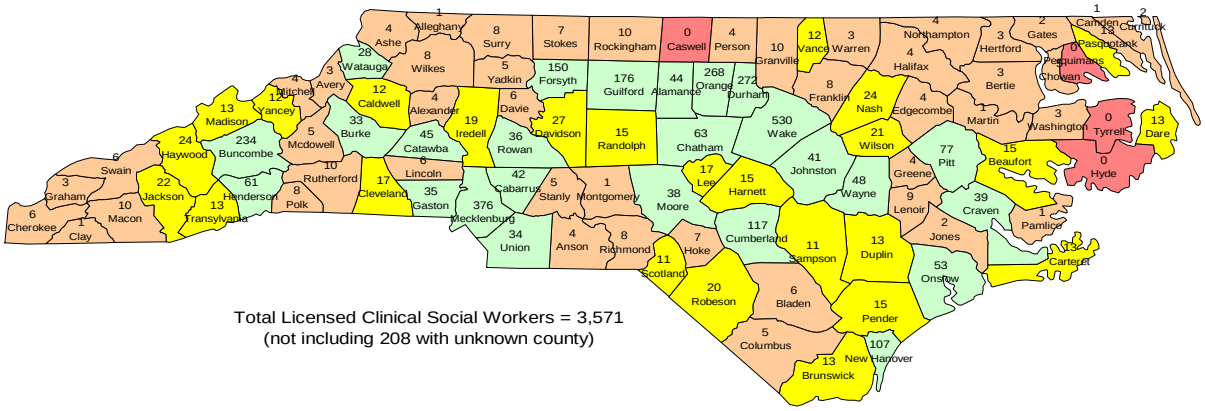
Total Licensed Clinical Addictions Specialists = 1,184

Number of LCASs Per County	
0	(13 counties)
1 to 4	(38 counties)
5 to 11	(24 counties)
12 to 139	(25 counties)

Data Source: NC Substance Abuse Professional Practice Board, August 6, 2009.

Map prepared by NC DMH/DD/SAS, Quality Management Team

Number of Licensed Clinical Social Workers (LCSW) in NC By County as of February 2007



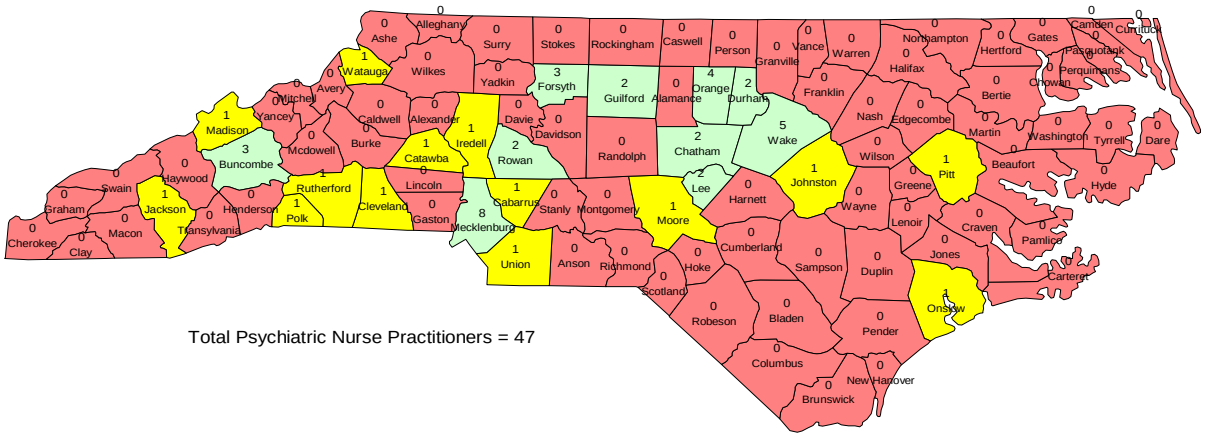
Total Licensed Clinical Social Workers = 3,571
(not including 208 with unknown county)

Number of LCSWs Per County	
0	(4 counties)
1 to 10	(46 counties)
11 to 27	(25 counties)
28 to 530	(25 counties)

Data Source: North Carolina Social Work Certification and Licensure Board, 2/15/07.

Map prepared by NC DMH/DD/SAS, Quality Management Team

Number of Psychiatric Nurse Practitioners In NC By County, April 2008



Total Psychiatric Nurse Practitioners = 47

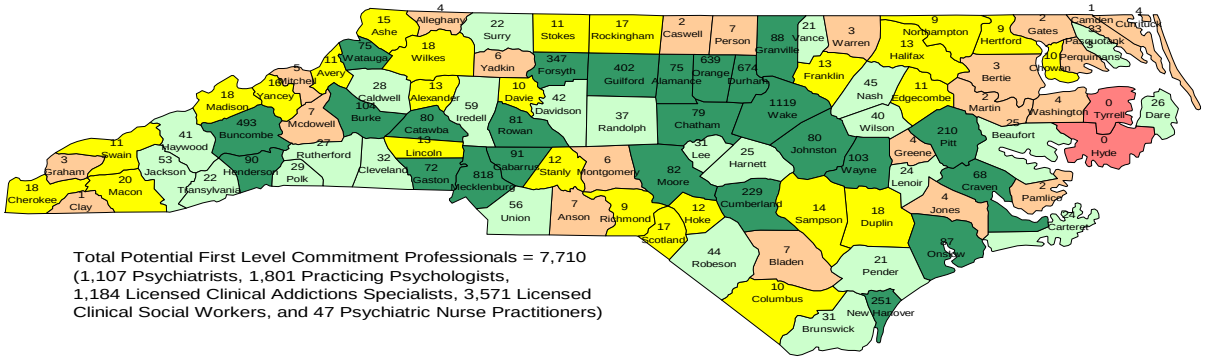
Number of MH NPs Per County

0	(76 counties)
1	(14 counties)
2 to 8	(10 counties)

Data Source: NC Board of Nursing, April 30, 2008.

Map prepared by NC DMH/DD/SAS, Quality Management Team

Number of Psychiatrists, Psychologists, Licensed Clinical Social Workers, Licensed Clinical Addictions Specialists, and Psychiatric Nurse Practitioners In NC By County



Total Potential First Level Commitment Professionals = 7,710
(1,107 Psychiatrists, 1,801 Practicing Psychologists,
1,184 Licensed Clinical Addictions Specialists, 3,571 Licensed
Clinical Social Workers, and 47 Psychiatric Nurse Practitioners)

Number of Professionals By County

0	(2 counties)
1 to 8	(22 counties)
9 to 20	(26 counties)
21 to 67	(25 counties)
68 to 1,120	(25 counties)

Data Sources: For Psychiatrists and Psychologists - NC Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the respective licensing board, October 21, 2007. For Psychiatric Nurse Practitioners - NC Board of Nursing, April 30, 2008. For LCAS - NC Substance Abuse Professional Practice Board, August 6, 2009. For LCSW - North Carolina Social Work Certification and Licensure Board, August 6, 2009. **Map prepared by** NC DMH/DD/SAS, QMT.

Appendix C

Training and Testing Modules

FIRST COMMITMENT TRAINING Links
(to access the web, put your mouse on the link, hit Control and right click)

Introduction- Doug Trantham
http://web4.streamhoster.com/pwkeys2/CCT__Intro_Trantham1/index.html#

Risk Assessment Overview - Molly Richardson
http://web4.streamhoster.com/pwkeys2/CCT__Risk_Assessment/index.html#

Law & Procedure- Mark Botts
http://web4.streamhoster.com/pwkeys2/CCT__Law&Procedure/index.html#
and
http://web4.streamhoster.com/pwkeys2/LawAndProcedure_files/frame.htm
*(This presentation best viewed in Internet Explorer)

Note that this part of the presentation largely refers to forms that your FC point person should have and can make available to you.

Eric Elbogen- Violence Part One
http://web4.streamhoster.com/pwkeys2/CCT__Violence_Elbogen1/index.html

Eric Elbogen- Violence Part Two
http://web4.streamhoster.com/pwkeys2/CCT__Violence_Elbogen2/index.html

Judge Dennis Redwing- Legal Status
http://web4.streamhoster.com/pwkeys2/CCT__LegalStatus_Redwing/index.html

Barbara Hallisey- Suicide and Self Harm
http://web4.streamhoster.com/pwkeys2/CCT__SuicidePotential_Halisey/index.html

Barbara Hallisey- Diagnosis
http://web4.streamhoster.com/pwkeys2/CCT__Diagnosis_Hallisey/index.html

Molly Richardson- Substance Abuse
http://web4.streamhoster.com/pwkeys2/CCT__Substance_Abuse_Richardson/index.html

Dr. Eugene Maloney- Mental Retardation
http://web4.streamhoster.com/pwkeys2/CCT__MentalRetardation_Maloney/index.html

Judge Buckner- Medical Issues 1
http://web4.streamhoster.com/pwkeys2/CCT__Medical_Issues1_Buckner/index.html

Judge Buckner- Medical Issues 2
http://web4.streamhoster.com/pwkeys2/CCT__MedicalIssues2_Buckner/index.html

Doug Trantham- Privileging
http://web4.streamhoster.com/pwkeys2/CCT__Privleging_Trantham/index.html#

Beth Guzman- Legal Issues
http://web4.streamhoster.com/pwkeys2/CCT__Legal_Issues_Guzman/index.html#

Appendix D

Preliminary Mental Health Assessment Tool

Mental Status Exam
Part 1

Date _____ **Consumer ID**_____

A. **Appearance**:

Physical Abnormalities: _____
_____

B. **Dress**: ☐ Appropriate ☐ Inappropriate

If in appropriate, describe:
_____
_____

C. **Mood**: ☐ Normal ☐ Depressed ☐ Manic ☐ Anxious ☐ Other

If other, describe: _____
_____

D. **Verbal Behavior**: ☐ Normal ☐ Slow ☐ Rapid/Pressured
☐ Spontaneous ☐ Non-spontaneous but appropriately responsive
☐ Inappropriate

If inappropriate, describe:
_____
_____

E. **Motor Activity**: ☐ Normal ☐ Psychomotor Retardation ☐ Agitated ☐ Other

If other, describe: _____
_____

F. **Affect**: ☐ Normal ☐ Labile ☐ Inappropriate

If inappropriate, describe:
_____
_____

G. **Oriented**: ☐ Time ☐ Place ☐ Person

Describe: _____
_____

H. **Memory**: ☐ Unimpaired ☐ Impaired

Describe: _____
_____

I. **Hallucinations**: ☐ No ☐ Yes

Describe: _____
_____

J. **Delusional Thoughts**: ☐ No ☐ Yes

Describe: _____
_____

K. **Feelings of Depersonalization**: ☐ No ☐ Yes

L. **Feelings of Unreality**: ☐ Yes ☐ No

M. **Somatic Functions**: Appetite _____ Sleep _____

N. **Suicidal Ideation**: ☐ No ☐ Yes ☐ Plans ☐ Attempts

Comments: _____
_____

O. **Homicidal Ideation**: ☐ No ☐ Yes

Comments: _____
_____

P. **Estimate of Intelligence**: _____

Q. **Judgment**: ☐ Poor ☐ Fair ☐ Good

Comments: _____
_____

R. **Insight**: ☐ Poor ☐ Fair ☐ Good

Comments: _____

Use the space below if you would like to provide additional information on the consumer. Signature/Date required.

Signature: _____ Date: _____

Appendix E

State Protocol for Medical Clearance of Consumers

Appendix F

The Galatean Mental Health Risk Assessment Tool (GRIST Tool)
www.galassify.org/grist

Version 3 (Adapted for North Carolina Division of Mental Health/Developmental Disabilities and Substance Abuse Services)

Appendix G
Acknowledgements

The Division of Mental Health, Developmental Disabilities and Substance Abuse Services would like to acknowledge the contribution of the following individuals and organizations to the design, development and implementation of the First Commitment Evaluation and this report.

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Robert Cox
Anita Daniels
Kevin Davidson
Lynn Durham
Manish Fozdar
Julie George
Bart Grimes
Elizabeth Guzman
Barbara Hallisey
Mark Hazelrigg
Don Herring
Robin Huffman
Paula Hyman
Brian Ingraham
David Jones
Michael Kupecki
Nena Lekwauwa
Gene Maloney
Nancy Morris
Don Neal
Anna North
James Osborne
Michael Owen
Drew Pledger
Janice Poplin
Gail Pruett
Dennis Redwing
Jack Register
Stacey Rhodes
Molly Richardson
Rob Robinson
Jim Scarborough

Janet Schanzenbach
Pam Shipman
Nilima Shukla
Sharon Sigmon
Will Simms
Chuck Spears
Janice Stroud
David Swann
Katayoun Tabrizi
Doug Trantham
Bill Vaughn
Sandra Walker
Deborah Young

Organizations

Alamance-Caswell Local Management Entity (LME)
Center for Behavioral Healthcare
Centerpoint LME
Clinical Social Work Society
Crossroads LME
DayMark Recovery
Durham Center
East Carolina Behavioral Health
Eastpointe LME
Institute of Medicine
Mecklenburg LME
National Association of Social Workers-NC
National Association of State Mental Health Program Directors
New River Behavioral HealthCare
North Carolina Board of Nursing
North Carolina Council of Community Mental Health/Developmental Disabilities/Substance Abuse Programs
North Carolina Hospital Association
North Carolina Medical Society
North Carolina Nurses Association
North Carolina Psychiatric Association
North Carolina Psychological Association
Office of the Attorney General
Pathways LME
Piedmont LME
SA Council
Smoky Mountain LME
Triangle Forensic Neurophychiatry
University of Aston, United Kingdom
University of North Carolina School of Public Health Statistics Department
Waynesboro Family Clinic